

Bereskin & Parr

INTELLECTUAL PROPERTY LAW

Appl. No : 09/621,234 Confirmation No.: 3325
Applicant : HENSHAW et al.
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Title : VERTICAL CYLINDRICAL SKEIN OF HOLLOW FIBER
MEMBRANES AND METHOD OF MAINTAINING CLEAN FIBER
SURFACES
TC./A.U. : 1792
Examiner : FORTUNA, Ana M.
Docket No. : 4320-241
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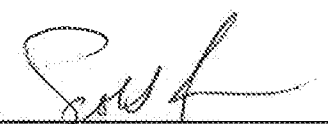
Board of Patent Appeals and Interferences
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SUPPLEMENTAL BRIEF IN SUPPORT OF APPEAL

This supplemental brief is being filed to correct a typographical error in the claims appendix. In particular, the second line of claim 16 has been amended to remove a deleted word in brackets that appeared in the previous claims appendix. The Applicants submit that this amended claims appendix complies with the rules for new claims added in a reissue application.

Respectfully submitted,
HENSHAW et al.

By 
Scott R. Pundsack
Reg. No. 47,330
Tel: (416) 957-1698

Manulife Corporate Park, 6733 Mississauga Road, Suite 600, Mississauga, Ontario L5N 6J5
Tel: 905.812.3600 Fax: 905.814.0031 www.bereskinparr.com

TORONTO MISSISSAUGA WATERLOO MONTREAL

CLAIMS APPENDIX

Claim 15. A system for withdrawing permeate from a liquid substrate while leaving particulate matter therein, comprising,

- (a) a non-pressurized reservoir other than a shell of a module for containing the substrate;
- (b) an assembly having a plurality of hollow fiber filtering membranes immersed in the substrate each membrane having a length greater than 0.5 m, the membranes together providing a surface area of at least greater than 1 m² and disposed generally vertically between upper and lower generally cylindrical solid bodies comprised of a potting material with (i) the solid bodies having the membranes sealingly secured therein so as to prevent the substrate from contaminating the permeate, at least a portion of the membranes spaced apart from adjacent membranes by the potting material to a center to center distance in the range from 1.2 to 5 times the outside diameter of the membranes, (ii) lumens of said membranes being in fluid communication with a permeate pan connected to one of the solid bodies and immersible in the substrate or to a pair of permeate pans connected one to each of the solid bodies and both immersible in the substrate, and, (iii) said membranes having a length between opposed surfaces of the solid bodies, in the range from 0.1% to 5% greater than the distance between opposed surfaces of the solid bodies;
- (c) a pump in fluid communication with said lumens of said membranes through at least one permeate pan, said pump operable to apply a suction to the lumens of the membranes to draw a component of the

- (d) substrate as permeate through said membranes while leaving particulate matter in said substrate; and,
- (e) a gas-distribution system having through-passages with openings distributed both radially and circumferentially between the membranes operable to provide a flow a gas through the through-passages to produce bubbles in the substrate.

Claim 16. The system of claim 15 wherein the length is in the range from 0.1% to 1% greater than the distance between the opposed surfaces of the solid bodies.

Clam 17. The system of claim 16 wherein the gas distribution system further includes a rigid air supply tube for carrying air to the through-passages and for spacing and positioning the lower and upper solid bodies relative to one another.

Claim 18. The system of claim 17 wherein the air supply tube has additional through-passages along its length.

Claim 24. The system of claim 15 wherein lower ends of the membranes are plugged.